



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

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TAKE
PRIDE IN
AMERICA

3809
UTU-68572
(UT-045)

M/053/005

March 2, 1992

Ken Kluksdahl
Tenneco Minerals
P.O. Box 2650
St. George, UT 84770

DOGM
MINERALS PROGRAM
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Dear Mr. Kluksdahl:

The February 19, 1992 Revised Plan of Operations for the Tenneco Goldstrike Project has been reviewed and was found to be incomplete. The following deficiencies were noted, and must be corrected before our NEPA analysis can begin.

1. Introduction

- a. Need a breakdown of disturbance showing:
 - current disturbance on BLM administered land
 - proposed new disturbance on BLM administered land
 - current disturbance on private land
 - proposed new disturbance on private land
- b. Access road west off the Gunlock road (T. 41 S., R. 17 W., sec. 29) is currently being used but is not shown on figure 1.1-1.

If the road northwest of Gunlock coming into the mine from the east (the Grapevine Wash/Tobin Bench road) is used, it needs to be included on the access map.
- c. The operating plan should include a listing of the specific claims on which work is actually proposed, not just a list of all the claims in the general area.
- d. On Table 1.3-1, the proper reference to the Bureau of Land Management file is UTU-68572/UT-047-88-18P.

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DIVISION OF
OIL GAS & MINING

2. Existing Operation

- a. Need to include pipeline to DI Ranch as part of disturbance on table 2.6-1 and include on a map.

3. Proposed Operation

- a. Need to include copies of Carbon Adsorption blueprints (as built, if available) in plan.
- b. There is a 50,000 ton difference in the amount of waste rock between tables 3.1-2 and 3.7-1.

- c. Leach Pad #3 - What is proposed design capacity? Will the material from the Caribou, Picaroon, and Moosehead pits completely fill it or is it designed to allow for unspecified future mining?

You have given an elevation for the top of the dam, but did not indicate the constructed height.

State in the plan that figure 3.2-1 is a preliminary drawing and the final design might require change to meet applicable Utah Division of Water Quality standards. The BLM cannot authorize a cyanide leach operation or site until required State permits have been obtained, so it would be best to submit the State permits as part of the Plan. If this is not possible, the BLM may approve the site contingent upon receiving the appropriate permits.

- d. There is a difference in the area of the haul roads between tables 3.8-1 and 3.1-1.

Travel way width is given as 40 feet for the existing operation on page 4, as 60 feet for the proposed operation on page 25, but is shown as 75 feet in figure 3.9-1.

Figure 3.9-1 does not show MSHA berms on roadsides.

- e. There is a significant difference in soil totals between Table 3.8-1 and the narrative on page 36. Totalling the acres and depth from table 3.8-1 gives 281,000 BCY, assuming 75% recoverable (from the narrative) gives 211,000 BCY, assuming 25% swell specified in Caterpillar Handbook (edition 21) indicates that 264,000 LCY should be placed in stockpiles, not the 212,000 LCY shown on Table 3.8-1.
- g. On page 29, there is a typographic error in the last sentence of the first paragraph. The figure being referred to is Figure 3.2-1, not figure 4.2-1.
- h. A perimeter fence will be required around the area, with the same specifications as the existing fence. 42 inches in height, spacing bottom to top of 12"-8"-10"-12".
- i. A Contingency and Emergency Plan will be required. It must include all of the hazardous materials and chemicals on site.

4. Reclamation Plan

- a. In section 4.13, you state that chlorination will be used as the final detoxification process. This should be specified with details in section 4.3.
- b. The BLM may require more stringent standards than the Utah Division of Water Quality. The standards may include WAD cyanide, mobilized metals, and chlorine compounds formed during the final cyanide neutralization process.
- c. Which leach pad foundation is referred to on page 44 (section 4.4 - Leach Pads, paragraph 2)?

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- d. In section 4.6, there is a large difference between the salvaged topsoil and the amount required to complete the reclamation in the Plan. On page 45 it is stated that "red bed clay materials" would be tested to determine if they are suitable. This testing should be done prior to the EA, so if the proposed material is not suitable, alternative material sources can be found.

The stippled pattern representing 14 inches of topsoil on maps GS-021 and GS-022 is used to represent 9 inches on GS-023. The stipple pattern (and color on EA maps) should be consistent from map to map. This causes a discrepancy on the joint border of maps GS-022 and GS-023.

No topsoil replacement is shown on the roads in the existing disturbance on figure 8c in the EA, although topsoiling is shown on map GS-023 of the proposed plan and required in the currently approved plan (1991).

- e. The seed mix should list Ephraim var. Crested wheatgrass as specified in the 1988 EA.

A statement should be included stating this seed mix may be changed with the concurrence of BLM, UDOGM, etc. if test plot results show the change is warranted.

- f. Slopes should be regraded to a rounded configuration as specified in the 1988 EA, not a straight slope.

- g. Fences, berms, and/or oversize rock shall be used to restrict vehicle traffic to the through road upon completion of reclamation as specified in the 1991 EA.

- h. Warning and/or informational signs will be posted at the entrance to the mine site following re-opening the through road to advise the public about the reclamation and any hazards as specified in the 1991 EA.

- i. It will be the operator's responsibility to remove the perimeter barbed wire fence when acceptable revegetation has been obtained as specified in the 1988 EA.

- j. The Surety calculations in section 4-13 were not analyzed as the bonding requirements cannot be determined until after the NEPA process is complete and a decision is signed stating what will be authorized.

The following items are not deficiencies in the proposed plan, but are items which will be addressed in the NEPA process and might require mitigation.

- a. In sec. 4.3.1 of the EA (page 64) you state the analysis of the waste rock indicates that there is no acid-generation potential. This needs to be supported by documented test results and analysis.

- WAYNE → b. The use of culverts instead of water crossings for crossings 5A, 4B, and 4A should be analyzed.

- c. Reshaping of haul road is not addressed in text, although page 43 states it will be ripped. Reshaping back to natural contours should be considered.

- I ASSUME HIGHWALLS WILL HAVE BENCHES OR BENCH REMNANTS
- d. Rock sculpting (blasting or construction to end up with an irregular surface instead of a smooth wall) should be considered for all highwalls which are to be left unreclaimed in the proposal. It is generally easier to do this while mining instead of after mining is completed.
- e. Solution build-up within the heaps after detoxification must be prevented. A method or methods acceptable to the BLM, Utah Division of Oil, Gas, and Mining and the Utah Division of Water Quality must be employed.
- f. The tops of the waste rock pile and leach pads, and the backfilled pits could be reshaped with hills and hollows (+/- 10 feet) instead of leaving flat. The low areas must drain to prevent ponding. This would enhance the visual quality of the reclamation.
- g. The soil on the slopes and surfaces should not be finished smooth, but left rough by the ripping to hold seed, moisture, and create microclimates. This would probably increase the revegetation success.
- h. All ripping should be done parallel to contours to prevent rills from forming and to help retain any run-off water.
- i. The BLM reclamation handbook recommends mulching at 2000 to 3000 lbs/acre, which will cover the area 2 to 3 inches deep, instead of the 4000 lbs/acre specified in the proposed plan.
- j. Monitoring for seeding should continue until a specified coverage is established, not for a time frame. This specified coverage is determined by UDOGM regulations.
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After the proposed Plan of Operations is complete, a detailed analysis of the Environmental Assessment will be done.

We would appreciate you providing us with two additional copies of the proposed Plan with the additions and additional copies of the EA for distribution to the Utah Division of Oil, Gas, and Mining and the Utah Division of Water Quality due to the interagency Memorandum of Understanding the BLM has with these agencies.

If you have any questions concerning the information needed, please contact Larry Gore, of this office.

Sincerely,

Debbie J. Pietrzak

Debbie J. Pietrzak
Area Manager